CLAIMS

1. Microcontroller (30) intended to be incorporated in a portable object (1) of type smartcard, including at least:

    a stud (VCC) to supply the said microcontroller (30) with current;

    - a data input and/or output contact stud (I/O);

    - an efficient data processing part (µCE); and

    - confidential information;

    characterised in that it also includes:

    - means (GEN, CAP, COM) to vary the supply voltage of the efficient data processing part (µCE), the said means being able to secure the said confidential data against current attacks.

2. Microcontroller (30) according to claim 1, characterised in that the means used to vary the supply voltage of the efficient data processing part (µCE) include:

    - a time variable resistor connected in series with the microcontroller (30) power supply stud (VCC).

3. Microcontroller (30) according to claim 2, characterised in that the variable resistor is a switch (COM) open during time intervals T_{off} and closed during time intervals T_{on}.

4. Microcontroller (30) according to claim 3, characterised in that the cyclic ratio $T_{off}/(T_{on} + T_{off})$ varies according to time.

5. Microcontroller (30) according to claim 3 or 4, characterised in that the period $T_{on} + T_{off}$ varies according to time.

6. Microcontroller (30) according to one of the previous claims, characterised in that the means used to vary the supply voltage of the efficient data processing part (µCE) include:

    - a pulse generator (GEN).

7. Microcontroller (30) according to claim 6, characterised in that the pulse generator (GEN) includes a voltage threshold crossing

synchronisation circuit across the terminals of the efficient data processing part.

8. Microcontroller (30) according to one of the previous claims, characterised in that the means used to vary the supply voltage of the
5   efficient data processing part (µCE) include:

- a condenser.

9. Microcontroller (30) according to claim 8, characterised in that the condenser is a capacitor (CAP).

10. Microcontroller (30) according to claim 8 or 9, characterised in
10   that the capacitor has a capacitance of greater than 0.1 nanofarad.

11. Microcontroller 30 according to one of the previous claims, characterised in that it includes a main layer (301) of silicon whose active face, which includes a circuit and supports the contact studs (300), is sealed to an additional protective layer (302) using a sealing
15   layer (303).

12. Microcontroller (30) according to claim 11, characterised in that the means (COM, CAP, GEN) used to vary the supply voltage of the efficient data processing part (µCE) are located in the additional protective layer (302):

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